Literature Review Findings on Incidence and Mortality Transcript

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ROBIN YABROFF: (not recorded) DR. KERNER: Yes you did. We really do want to hear what you have to say. DR. YABROFF: Maybe you're the one that turned it off, Jon. Could be. I'm from the Cancer Control Program at Georgetown University, and my colleagues did an evidence based literature review to look at what we've seen over the past 50 years in terms of cervical cancer control. And we sort of focused this on what we do know, and then as we're going through it, what are the things we need to know to really understand what are the factors that are driving excess cervical cancer mortality in some of these rural counties.

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So what we did is we reviewed the literature from 1966 to the present, and we also went back and looked at referenced lists and things like that before Medline was available to address these three, four competing hypotheses that Jon spoke of earlier. And the first would be that elevated mortality reflects greater incidence, greater risk factors in these populations. The second would be that greater mortality reflects low screening rates and related to that, lower rates of follow-up after abnormal Pap smear. And then, finally, that elevated mortality reflects poor access to treatment or poor compliance with recommended treatment. And I just want to say that when we looked at the screening, we restricted it to Pap smears since that seems to be -- although there are a lot of new technologies that are increasingly available, the Pap smear is the one that's been around for a long time and there's a lot of published literature describing its effectiveness and use.

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As you can see in this cartoon, you have bloodhounds circling on a laptop computer. So the first thing to do is your on-line search.

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We also used an analytic framework which is very similar to the cancer control process that Jon Kerner presented earlier. If you look across the natural history, you've got a normal cervical epithelium progression and regression to HPV infection and also, again, progression and regression to H-Cell invasive cancer, and finally, cervical cancer death. Now the cancer control process, which is overlaid on the top, are different places where we can intervene to reduce these cervical cancer deaths. So prevention through risk factor reduction, such as smoking cessation, HPV vaccination, things like that, screening and diagnosis and treatment, increased Pap smear use, increased follow-up after abnormal findings, and then, finally, definitive treatment, so access and utilization of recommended treatment for invasive and pre-invasive disease.

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So first, we're going to be talking about that elevated mortality might reflect increased risk factors in these geographic regions.

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So based on the literature review, what we found is that high concentration of population characteristics associated with increased incidence are concentrated in some of these rural areas: poverty, low social class, older age, inadequate insurance. Also, in these areas, more likely to have lack of transportation and medical care infrastructure, as people have reported previously. However, there is really insufficient data to look at rates of risk factors by county level. We can come up with national estimates, but it is very difficult to understand what's actually happening on the local level. Additionally, we also looked at rates of hysterectomy in the geographic rates, and we didn't see any patterns that would be

consistent with lower rates of hysterectomy and areas with high cervical cancer mortality.

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This is a list of things that we would like to know to help us understand more about what's actually going on in these counties. It's not comprehensive; it's just based on our review of what we felt were important things that we would like to know. What is HPV prevalence, smoking prevalence, sexual practices, condom use, micronutrients We have very little idea of what rates are in a lot of these counties. And if these are elevated, will risk factor reduction be acceptable, effective and cost-effective Will HPV testing or other new technologies -- will that improve our outcomes And finally, would HPV vaccination be acceptable as a means to reduce cervical cancer mortality. And that's all.